ECCLESIASTICAL ARCHITECTURE.

Mr. Wightwick has recently published a letter on the determination of some principle for the establishment of an ecclesiastical style of architecture, expressing the reformed church of England, in consequence of a communication from the secretary of one of the church-building societies, which seemed to indicate the prohibition of "any departure from ancient ecclesiastical example," and of the encouragement given to that prohibition by the Cambridge Camden Society. He says:—

"That the Diocesan Architectural Societies have effected great good in aiding to subvert the 'Carpenter's Gothic' of Batty Langley, it were most unjust to deny: but, if they have done this only to insist hereafter on the close imitation of the mere *models*, rather than of those *motives of fitness*, which guided our old Roman Catholic architects, they will tyrannically impede those progressive movements, which might, ere long, lead to the perfection of a form and style of architecture emphatically expressing the 'True and perpetual Church.'

"The magnificent cathedrals of our ancestors are admirable, from their perfect adaptation to the religious ceremonies which prevailed in the English Church before the Reformation; and it is said to have been in the hope of reviving the popish service, with its processional pageantries, that the Duke of York opposed Sir C. Wren's first design for St. Paul's cathedral, on account of its 'departure from ancient example;' thus precluding the only opportunity which has ever yet been afforded of our possessing a cathedral essentially Protestant."

Mr. Wightwick considers the positive requisites for a church to serve all the purposes of Christian worship as now established in England to be these:—

"First under the head of *Convenience*—

"1. A main space for public worship, &c., wherein a maximum number of persons* shall be commodiously seated without impediment to sight and hearing. Pillars, therefore, and galleries which must be supported by pillars, are prohibited. 2. An altar, as open as possible to the whole congregation, with the least practicable interception by the pulpit and desk. 3. A highly-raised pulpit, and a lower-raised reading-pew or lectern, having one desk for the Prayer-book, looking towards the altar, and another for the Bible, looking towards the people. Also a faldstool for the Litany, in a central position, directly facing the altar. 4. A font, within view of the assembled congregation; or, 5. A baptistery, united with the body of the church. 6. An organ-loft, at the west end of the church, opposite the altar at the east end. 7. Chapter-room, library, vestry, or other offices as required, near the chancel. 8. A tower, or towers, for the reception of bells, and as also useful in attracting the distant observer to the locality of the Church.

"Secondly, under the head of *Expression*:—

"9. The general plan to be cruciform, as prominently symbolizing the Christian faith. 10. The visible signs of Trinitarian belief to be indicated, wherever practicable, consistently with the unity of the whole. 11. The constituent of Infinity to be observed in the adoption, or invention of a style most conducive to it, as affording the best opportunities for proportional loftiness and length of perspective. 12. The utmost respect to be manifested for our ancient examples, in the consideration (and, if practicable, in the adoption) of so much of their form, style, and particular features, as may be pure, and interesting in their connection with the progressive history of the 'Holy Catholic Church;' and equal care to be taken in avoiding the repetition of those architectural dispositions and decorative details which are proper only to the Romish Church."

In reference to Pointed architecture, and its fitness for ecclesiastical buildings, he says,—

"The movement which Pointed architecture has now taken, as most suitable to the Christian temple, derives additional impetus when we consider it as the positive offspring of Christianity itself. Churches have been built in almost all styles; but the Gothic Pointed architecture of Catholic Europe is, exclusively, Christian in its origin, progress, and perfection. In form, in detail, in mysterious effect, it proclaims the spirit of which it is the sign.

"But, by that same authority under which our Saxon architects differed from those of the Constantinal era, by that under which the designer of the first Pointed church differed from the matured and established Norman model, and by that under which were practised all the successive modifications of Pointed architecture, from the Temple Church to the chapel of King's College at Cambridge, we claim the privilege of allowing our regard for present necessities and altered circumstances, to co-operate with our respect for ancient usages and forms, in the production of what shall have both a retrospective and prospective merit; nor will we be told that, because we may find it imperative to deviate from 'ancient example' in general form and proportion, we shall therefore exhibit a 'departure' from the *spirit* of our pious ancestors. We have looked minutely into the merits of Pointed architecture, and have vainly sought to improve on its essential principles and details, whether of construction or ornament; but we have now to provide for certain requirements which did not exist when our Gothic churches were built, and to avoid the mere imitations of such forms, &c., as are no longer necessary, but are rather hostile to our reformed worship."

* It has been found, by experiment, that not more than 2,000 utterers can be conveniently placed within a church (even where there are galleries), so as to have the advantage of [illegible] imperfect by the pillars supporting the galleries.

ENGLISH SKILL AND CAPITAL ENLIGHTENING THE CONTINENT.

If we do borrow from our foreign neighbours singers, musicians, *modes*, and the polka, they have to thank us in return for much increase of comfort, and for the means of social advancement. Amongst the advantages conferred by England on continental towns there is none more evident than those afforded by the supply of gas.

In France, Germany, Belgium, and Holland, English capital and English skill have laid down pipes, built manufactories, and still direct the supply of light to numerous towns. In Holland it was some time before the authorities could be induced to afford facilities for such undertakings, fearing the danger which might arise from opening trenches in their uncertain soil, and the difficulty of passing pipes through the canals and basins which occur constantly; but experience has shewn that these fears were groundless.

The last town visited by English enterprise for this purpose is the Hague, where the works, commenced hardly six months ago, were completed only a few days since. The local papers are full of compliments to English skill. Honour, says one of them, to the able and active engineer, Mr. Shepherd, who has directed the whole, and realized with so much talent and rapidity the idea of this vast undertaking! Honour to the clever manufacturers, Messrs. Goldsmid and Co., who have made so complete all the machinery of this fine establishment! and honour to our Ediles, who, enemies of routine and conquerors of prejudice, have given us the advantage of a useful discovery. The Hague is now the equal of the great cities of Europe,—like them, she too has a sou for the night.

New Lunatic Asylum, Somerset.—At the Quarter Sessions held last week at Wells, a report from the Lunatic Asylum Committee was read. It stated that every thing was now nearly complete for the conveyance of the land selected as the site of the asylum, and that they had contracted for an additional four acres of land, which were considered necessary. They had advertised for plans for the building, but circumstances over which they had no control had delayed the appearance of the advertisements, and complaints had been made that the time fixed for receiving plans was too short; it had, therefore, been extended to the 22nd of January. The committee would have increased difficulty in their choice of a plan, unless they knew the amount of money which would be granted; they were bound by the 26th section of the 9th Geo. 4, c. 40, to fix the sum which might be expended; and from the inquiries which the committee had made, they entertained the confident hope that 30,000*l.*, the sum [illegible] required would not be exceeded.

FIRE-PROOF HOUSES.

The attempts which have been made to render houses fire-proof are so intimately connected with the construction of dwellings, that it will be proper to give a few brief details on the subject. There are many difficulties attending these attempts; for so long as wood forms the chief inner frame-work of a house, there will always be considerable liability to destruction by fire. Most of the proposed plans have had relation to the coating of the wood with some substance which should render it less inflammable, while others have been directed rather to the rejection of combustible substances from the list of those used in house-building.

So long back as 1775, Mr. Hartley made several trials in order to test the efficacy of a method invented by him for that purpose. Thin iron plates were nailed to the top of the joists: the edges of the sides and ends being lapped over, folded close, and hammered together. Partitions, stairs, and floors were proposed to be defended in the same manner. The plates were so thin as not to prevent the floor from being nailed on the joists in the same manner as if the iron were not used; and the plates were kept from rust by being painted or varnished with oil and turpentine. Mr. Hartley had a patent for this invention; and Parliament voted a sum of money towards defraying the expense of his numerous experiments. It does not, however, appear that the plan was permanently adopted.

About the same period, Lord Mahon, afterwards Earl Stanhope, a nobleman possessing a highly inventive tact in mechanical matters, brought forward another method having the same object in view. This method was of a three-fold character, comprising *under-flooring*, *extra-lathing*, and *inter-securing*.

The method of under-flooring is either single or double. In single under-flooring, a common strong lath of oak or fir, about one-fourth of an inch thick, should be nailed against each side of every joist, and of every main timber, supporting the floor which is to be secured. Other similar laths are then to be nailed along the whole length of the joists, with their ends butting against each other. The top of each of these laths or fillets ought to be at an inch and a half below the top of the joists or timbers against which they are nailed; and they will thus form a sort of small ledge on each side of all the joists. These fillets are to be well bedded in a rough plaster when they are nailed on, so that there may be no interval between them and the joists; and the same plaster ought to be spread with a trowel upon the tops of all the fillets, and along the sides of that part of the joists which is between the top of the fillets and the upper edge of the joints. In order to fill up the intervals between the joists that support the floor, short pieces of common laths, whose length is equal to the width of these intervals, should be laid in the contrary direction to the joists, and close together in a row, so as to touch one another; their ends must rest upon the fillets, and they ought to be well bedded in the rough plaster, but are not to be fastened with nails. They must then be covered with one thick coat of the rough plaster, which is to be spread over them to the level of the tops of the joists; and, in a day or two this plaster should be trowelled over, close to the sides of the joists, without covering the tops of the joists with it.

In the method of double-flooring, the fillets and short pieces of laths are applied in the same manner as here noticed; but the coat of rough plaster ought to be little more than half as thick as that in the former method. Whilst the rough plaster is being laid on, some more of the short pieces of laths must be laid in the intervals between the joists upon the first coat, and be dipped deep in it. They should be laid as close as possible to each other and in the same direction with the first layer of short laths. Over this second layer of short laths there must be spread another coat of rough plaster, which should be trowelled level with the tops of the joists, without rising above them. The rough plaster may be made of coarse lime and hair; or instead of hair, hay chopped to about three inches in length may be substituted with advantage. One measure of common rough sand, two measures of slacked lime, and three measures of chopped hay, will form in general a very good proportion, when